

The Implementation of the Environmental Education in Junior High School in Manado

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Abstract. Environmental issues are increasingly of concern, such as environmental pollution that impact is increasingly difficult. Environmental education in school becomes important is implemented to provide an understanding of the importance of keeping the environment. The purpose of this research was to evaluate and explain how the impact of the implementation of environmental education in middle school against the attitude and behavior of the community in the management of the school environment. The research method is a method of descriptive models of evaluation context, input, process, product. Results of the study, the first secondary school adiwiyata program participants with the implementation of good environmental education found a change in attitude and behaviour of the citizens of the school of the environment. Students and teachers who care about the health of the environment and the preservation of environmental functions are also good. While at the school who is not a participant of the program adiwiyata found the attitude and behaviour of the citizens of the school which is less good on aspects of environmental management. It was concluded that the implementation of good environmental education in junior high school became one of the solutions to address environmental issues in Manado. School programs adiwiyata is one of the environmentally educational development model and will be the solution to address the environmental concerns.

Keywords: environmental crisis, environmental education, adiwiyata school

1. Introduction

Observing the acceleration of the development of science and technology today, it is not only a positive impact on the lives of human beings but also have a negative impact, that will eventually affect all aspects of life and human beings else on Earth. Addressing the development of this technology then environmental education needs to be improved teaching in schools ranging from elementary school to College, so that education can become agents of change in attitude and behaviour of humans on the environment. Environmental education is very important material taught in school to form the attitudes and behaviour of students as well as residents of the school be positive towards the environment, where they conduct the activity. [1] Requires that the goal of environmental education is encouraging and gives the opportunity to the public to gain knowledge, skills and attitudes, which in turn can foster a caring,

commitment to protecting, improving and harnessing the environment wisely, creating new patterns of behaviour that are friendly with the environment, developing environmental ethics and improve the quality of life. [2] Environmental education learning process should be based on the ideas and principles of sustainability to provide quality education by Learning to know, Learning to be, Learning to live together, Learning to do, Learning to transform oneself and society. [3] Environmental issues nowadays talked about, because it has seemed the existence environmental pollution caused by human action.

Environmental education is one means and container forming the character of children especially in the formation of character or behavior as well as the establishment of a personal love of the environment. Because the real environmental problems caused incomprehension of mankind will impact arising on him, due to damage to the environment. If every individual human being since childhood can be taught how it should be and behave towards the surrounding environment, then there will be built a private attitude who loves the environment. Understanding about what is human surroundings and what is its impact on life when tampered with, it is imperative given to children from an early age. Since early childhood education until entering primary school age children should already be instilled sense of how loving the environment through the example given by teachers or adults around him. Education according to the disconnection between Langeveld are adults with immature men so immature can grow to maturity in understanding spiritual and mental or adult, so a mental revolution was supposed to begin from an early age.[4] Realized or not, all the problems of the environment due to human behavior that is not living in accordance with nature, utilizing natural without calculation. Just by changing the human behavior can reduce environmental problems

The United Nations has designated the period 2005 to 2014 as the decade of “Education for Sustainable Development”. The objective is to integrate the concept of sustainable development in education processes around the world. This necessitates the sensitisation and involvement of all persons responsible in political and business communities, citizens, teachers, students and schoolchildren. The Green Dot organisations in 24 European countries and their partners in the UK and Canada accept their responsibility for the future and have in recent years made substantial contributions to ensuring people are aware of how important it is to adapt their behavior and lifestyles to promote sustainable development. Global environmental issues, such as the greenhouse effect, the decimation of biological diversity and the consumption of finite resources can only be solved on the basis of more intensive international cooperation. People with an understanding of the ecological, economic and social correlations at global level are needed to overcome these challenges is playing a pioneering role in achieving this aim [3].

In an attempt to accelerate the development of environmental education in particular lines of formal education at the level of primary and secondary education, then on February 21, 2006 has been proclaimed by the Program Adiwiyata with the aim of encouraging and shaping the school's caring and Cultured Environments that are able to participate and carry out conservation efforts and preservation of the environment and sustainable development for the benefit of the present generation or to come. Adiwiyata school as one of the educational model that can give an example of changing the behavior of the student of the attitude less concerned about the environment into a love of the environment. At school students are taught every day after school the pupils arrive at school earlier pay attention to his school environment, when they discovered the existence of trash in the courtyard of the school and in the classroom, must be taken and placed on the trash that's been provided. The trash can is divided into three

namely garbage containers of organic, green, recycling waste containers, yellow color and a non organic rubbish and not recyclable containers of red color [6,7, 8, 9].

The environmental disaster that happened is a natural process, but also due to the behavior of a group of humans who are less aware of the importance of the environment. Therefore, the Government is working to bring human beings in order to behave environmentally friendly. The efforts made to implement the Government's environmental education program in the form of Adiwiyata. The results showed that Adiwiyata produces behavior change program citizen schools are aware of the needs of the environment. Teachers and students are aware that the environment is clean, safe, sanitation disaster smoothly is a comfortable place in life. Teachers and friends without shy and tired to always admonish and advise students or citizens of other schools that contribute to damaging the environment. Various ways to pass along to the adiwiyata program, one of them in the form of the assignment and environmental sanctions for violators of the policy. The guidelines of the Adiwiyata program in the form of a policy the school environmentally, curriculum activities, environmentally-based participative environment as well as the supporting infrastructure that is environmentally friendly [10, 11]

2. Research method

Research methods is a model of evaluation of the implementation of environmental education. Research evaluation is a study conducted aiming to decision-making by comparing the events, activities and products with standards and programs that have been assigned based on the phenomenon. The object of this research is the junior high school in Manado city, selected by purposive as the target of evaluation, to obtain data and information on the implementation of the Adiwiyata School program. Respondents research the principal, teacher and student who also at one time the main source of data about the implementation of the environmental education curriculum. The research goal is the teachers and students from two junior high school adiwiyata program participants, and two junior high school who is not a participant of the program adiwiyata. This research is an evaluative research CIPP model (context, input, process, and product). The methods used in this research is a survey method because of the problems examined regarding the event is taking place or is taking place. As Described [11, 12] that the survey was generally done to obtain a description of a condition and the practice of organizing education based on the reality that confronts, and planning its development.

To calculate the percentage environmentally school evaluation using the following formula [12]:

$$P = n/f \times 100\%$$

Description: P = Percentage

n = number of score obtained

f = total score overall

Table 1. Category assessment school environmentally

Level Assessment	Categories
51 – 100%	good or high
0 - 50%	not go or less

3. The results of the research and the discussion

3.1. The results of the research of evaluation of teachers and students on the Junior high school program participants adiwiyata seen from the aspect of the evaluation **context** an assessment of the implementation of the adiwiyata programme by the particular implementation of environmental education are at a high category an average of 58%, in this case have the effect on the student self-assessment in terms of the self-understanding of students who are also high on the category average of 59%. Aspects of teacher **input** has an average score of 59% and 57% of the students both in the high category. Evaluation of aspects of the **process** of the position value to teachers and students are on the same value scores on average 60% but still on the high category. Evaluation on the aspects of the **product**, teachers have an average score of 59% and 62%. At the school who is not a participant of the program adiwiyata, shows the different values the results of evaluation of teachers and students from 4 aspet conducted assessments. At the school who is not a participant of the program adiwiyata, shows the different values the results of evaluation of teachers and students from 4 aspet conducted assessments. Aspects of the context , input, proses, and product of the average ranged from 42% - 55% the average value is in the range of categories less well, however there is still a good entry on categories.

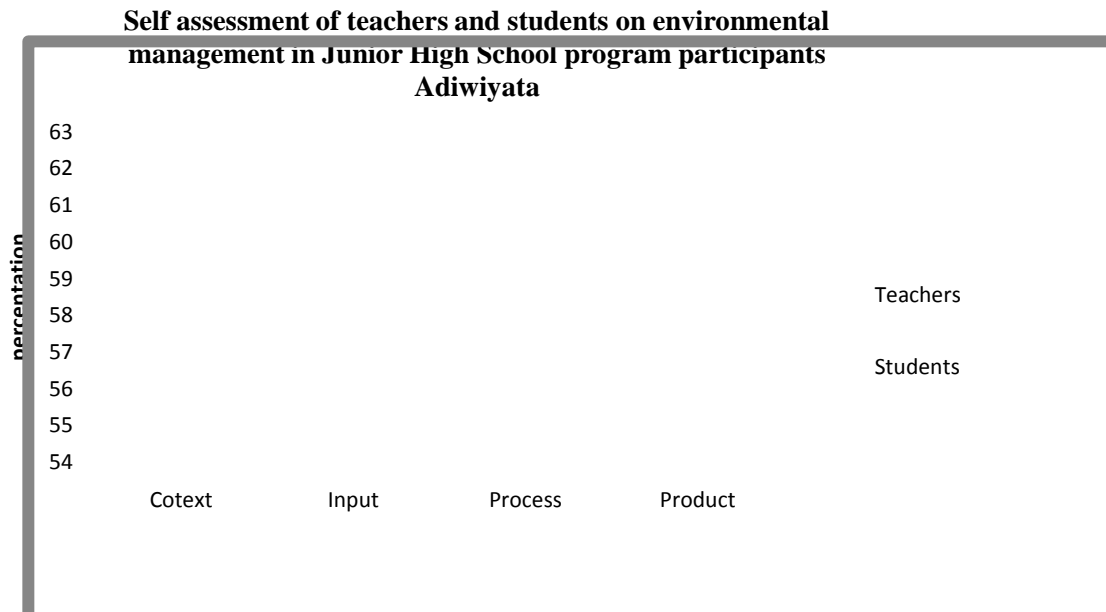


Figure 1 Self-assessment of teachers on environmental management in Junior high school program participants adiwiyata

The graph in Figure 1 above explained that the first high school student to the school of adiwiyata showed that the behavior of students in participatory environmental management is on the category either.

3.2. Discussion

This difference research on the value of evaluation results among school adiwiyata with program participants who are not adiwiyata affected by program participants the understanding of teachers on environmental education materials. Teachers who have a good understanding of student understanding also produced are good for the environment. Similarly, in environmental management, teacher's example will influence the attitudes and behavior of the students at the school. Research results [13] students who attend school on school adiwiyata program participants have an environmental awareness that is no different to students who attend school on a school that does not implement adiwiyata. This appears to be influenced by the level of understanding and knowledge of teachers on environmental education materials. [1,6]To enhance the environmental awareness of students, need effective and continuous efforts that has to do with factors that affect environmental knowledge, attitudes and behaviour of the

environment students. Increase in knowledge, attitudes and behaviour of the environment students can be done by the school in its function as the giver of the understanding, awareness and guidance to students in being and behaving caring and cultured environment. Increase in knowledge, attitudes and behaviour of the environment students can be done by either school on school adiwiyata program participants as well as that does not follow this program, by improving the implementation of the environmental education curriculum. The improvement must be continuous monitoring is conducted against activities that are performed to find out the extent of the changes that occur in the three aforementioned aspects particularly aspects

4. Conclusion

The first secondary school adiwiyata program participants with the implementation of good environmental education found a change in attitude and behaviour of the citizens of the school of the environment. Students and teachers who care about the health of the environment and the preservation of environmental functions are also good. While at the school who is not a participant of the program adiwiyata found the attitude and behaviour of the citizens of the school which is less good on aspects of environmental management. It was concluded that the implementation of good environmental education in junior high school became one of the solutions to address environmental issues in Manado.

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